

MEDICAL SUPPORT FOR ISS CREWMEMBER TRAINING IN STAR CITY, RUSSIA

MOTIVATION:

Medical support of spaceflight training operations across international lines is a unique circumstance with potential applications to other aerospace medicine support scenarios. KBRwyle's Star City Medical Support Group (SCMSG) has fulfilled this role since the Mir-Shuttle era, with extensive experience and updates to share with the greater AsMA community.

OVERVIEW:

The current Soyuz training flow for assigned ISS crewmembers takes place in Star City, Russia. Soyuz training flow involves numerous activities that pose potential physical and occupational risks to crewmembers, including centrifuge runs and pressurized suit simulations at ambient and hypobaric pressures. In addition, Star City is a relatively remote location in a host nation with variable access to reliable, Western-standard medical care. For these reasons, NASA's Human Health & Performance contract allocates full-time physician support to assigned ISS crewmembers training in Star City. The Star City physician also treats minor injuries and illnesses as needed for both long- and short-term NASA support personnel traveling in the area, while working to develop and maintain relationships with local health care resources in the event of more serious medical issues that cannot be treated on-site. The specifics of this unique scope of practice will be discussed.

SIGNIFICANCE:

ISS crewmembers training in Star City are at potential physical and occupational risk of trauma or dysbarism during nominal Soyuz training flow, requiring medical support from an on-duty aerospace medicine specialist. This support maintains human health and performance by preserving crewmember safety and well-being for mission success; sharing information regarding this operational model may contribute to advances in other areas of international, military, and civilian operational aerospace medicine.